

UNCLASSIFIED

PE NUMBER: 0604617F
PE TITLE: Agile Combat Support

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2004	
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604617F Agile Combat Support					
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	7.870	13.360	10.053	8.976	8.814	8.926	9.037	Continuing	TBD
2895 CE Readiness	5.205	7.870	6.405	6.009	6.538	6.643	6.745	Continuing	TBD
4910 Aeromedical Readiness	2.665	5.490	3.648	2.967	2.276	2.283	2.292	Continuing	TBD

In FY05, Project 2895, Civil Engineering Readiness (CE), includes a new start effort.

(U) **A. Mission Description and Budget Item Justification**

This Program Element (PE) provides capabilities to rapidly deploy, defend and sustain airfield operations, and command and control activities to ensure readiness. In addition, this PE provides tactical and strategic aeromedical evacuation systems, automated information systems; and medical treatment equipment to meet unique Air Force medical readiness and operational requirements. These activities are prerequisites to establishing air superiority. Development of Agile Combat Support (ACS) systems provides beddown for aircraft, support equipment, and forces at both main operating bases and contingency operating locations, which may have only a runway and a water source. They also offer crucial utilities, runway stabilization and repair, explosive ordnance disposal (EOD), rescue and recovery aids, aeromedical evacuation and treatment equipment; and security and reconnaissance capabilities to support aircraft deployment, launch, recovery and regeneration. Lighter-weight, rapidly deployable equipment has become essential in supporting numerous global contingencies such as DESERT SHIELD/DESERT STORM, Provide Comfort, Restore Hope, Joint Endeavor, and Enduring Freedom for security, base defense, relief efforts, and special operations throughout the world. Specific ACS capabilities being developed include: power generation and distribution systems to reduce airlift; deployable medical grade oxygen generation systems; a family of deployable shelters to be used as aircraft hangars, maintenance facilities, heavy equipment storage, Command, Control, Communications, Computers and Intelligence (C4I) operations, medical and personnel shelters, systems to repair runway damage, and Joint Service (Army-led) test, evaluation and acquisition of protective systems, and equipment to be used by Air Force EOD technicians for reconnaissance and mine clearing missions.

The Agile Combat Support program is in RDT&E Budget Activity 5 - System Development and Demonstration (SDD) because it supports development, testing and evaluation of materials and equipment for contingency basing, detection and handling of explosive ordnance, tactical shelters, and aeromedical evacuation systems.

R-1 Shopping List - Item No. 80-1 of 80-13

Exhibit R-2 (PE 0604617F)

Exhibit R-2, RDT&E Budget Item Justification

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604617F Agile Combat Support

(U) **B. Program Change Summary (\$ in Millions)**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	7.965	5.574	7.080
(U) Current PBR/President's Budget	7.870	13.360	10.053
(U) Total Adjustments	-0.095	7.786	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.114	
Congressional Increases		7.900	
Reprogrammings	0.139		
SBIR/STTR Transfer	-0.234		

(U) **Significant Program Changes:**

In FY04, Project 4910 received two Congressional Adds in the amounts of \$2.8M and \$2.1M, respectively, for Deployable Oxygen System (DOS) programs and Nano-Technology to produce sterile water.

Also in FY04, Project 2895, Civil Engineering Readiness, received \$3.0M for the Base Operating Support and Assessment Model (BOSAM).

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Exhibit R-2a, RDT&E Project Justification

DATE

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BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)				0604617F Agile Combat Support			2895 CE Readiness		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
2895 CE Readiness	5.205	7.870	6.405	6.009	6.538	6.643	6.745	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

In FY05, Project 2895, Civil Engineering (CE) Readiness, includes a new start effort.

(U) A. Mission Description and Budget Item Justification

This project provides capabilities to rapidly deploy, defend and sustain airfield operations and command and control activities to ensure readiness. These activities are prerequisites to establishing air superiority. Agile Combat Support (ACS) systems provide beddown for aircraft, support equipment, and forces at both main operating bases and contingency operating locations, which may have only a runway and water source. They also offer crucial utilities, runway stabilization and repair, explosive ordnance disposal (EOD), rescue and recovery aids; and security and reconnaissance capabilities to support global aircraft deployment, employment, recovery and regeneration. Light weight, rapidly deployable equipment has become essential in supporting numerous global contingencies such as DESERT SHIELD/DESERT STORM, Provide Comfort, Restore Hope, Joint Endeavor, Enduring Freedom and Iraqi Freedom for security, base defense, relief efforts, and special operations throughout the world. Specific ACS capabilities being developed and fielded include: deployable power generation and distribution systems to reduce airlift and energy consumption, deployable shelters to be used as aircraft hangars, maintenance facilities, heavy equipment storage, C4I operations, medical and personnel shelters, systems to repair runway damage; and Joint Service (Army-led) test, evaluation and acquisition of protective systems, and equipment to be used by Air Force EOD technicians for reconnaissance, mine clearing operations, accessing and neutralizing improvised explosive devices, and equipment in support of Homeland Defense missions.

The Agile Combat Support program is in RDT&E Budget Activity 5 - System Development and Demonstration (SDD) because it supports development, testing and evaluation of materials and equipment for contingency basing, detection and handling of explosive ordnance, tactical shelters, and aeromedical evacuation systems.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Accomplishments/Planned Program			
(U) Continue SDD for All-purpose Remote Transport System (ARTS)/Attachments	1.100	1.700	1.700
(U) Continue SDD for Rapid Parking Ramp Expansion (RPRE)	0.469	0.100	2.100
(U) Initiated and continued SDD for Large Shelter System (LSS) (formerly Large Air-Inflatable Shelter System)	1.215	1.339	0.500
(U) Continued SDD for Multimedia Training Systems (MTS)	1.720	0.984	0.800
(U) Continued SDD for Commercial Technology Exploitation (CTE)	0.701	0.747	0.705
(U) Initiate SDD for New Family of Environmental Control Systems (NFECS)	0.000	0.000	0.600
(U) Initiate Base Operating Support Assessment Model (BOSAM)	0.000	3.000	0.000
(U) Total Cost	5.205	7.870	6.405

Exhibit R-2a, RDT&E Project Justification		DATE February 2004
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604617F Agile Combat Support	PROJECT NUMBER AND TITLE 2895 CE Readiness
<p>(U) <u>C. Other Program Funding Summary (\$ in Millions)</u></p> <p>(U) <u>D. Acquisition Strategy</u></p> <p>Many of the projects funded in this PE employ a streamlined acquisition approach. Whenever practical, commercial items are tested and evaluated as candidates for solutions to user needs. This normally involves characterization, verification and qualification testing to ensure off-the-shelf equipment is properly adapted for military purposes. The Base Expeditionary Airfield Resource (BEAR) Readiness Board evaluates laboratory and commercial technologies with application for modernization of BEAR assets, such as deployable shelters, power, waste treatment and airfield support systems. With board approval, the System Program Office (SPO) initiates SDD, and production funding is realigned from current product lines to support modernization of assets. Initiation of SDD includes all 6.4 activities leading up to contract award and subsequent test and evaluation culminating in a Milestone C production decision.</p>		
Project 2895	R-1 Shopping List - Item No. 80-4 of 80-13	Exhibit R-2a (PE 0604617F)

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Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2004

BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE				
05 System Development and Demonstration (SDD)				0604617F Agile Combat Support				2895 CE Readiness				
(U) <u>Cost Categories</u>	<u>Contract Method</u>	<u>Performing Activity &</u>	<u>Total</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>Cost to</u>	<u>Total</u>	<u>Target</u>
(Tailor to WBS, or System/Item	<u>& Type</u>	<u>Location</u>	<u>Prior to FY</u>	<u>2003</u>	<u>2003</u>	<u>2004</u>	<u>2004</u>	<u>2005</u>	<u>2005</u>	<u>Complete</u>	<u>Cost</u>	<u>Value of</u>
Requirements)			<u>2003</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>			<u>Contract</u>
(\$ in Millions)			<u>Cost</u>		<u>Date</u>		<u>Date</u>		<u>Date</u>			
(U) <u>Product Development</u>												
ARTS/Attachments (new integrated contract)	FFP	Applied Research Associates, South Royalton, VT	3.967	1.100	Aug-02	1.700		1.700		0.900	9.367	7.404
Rapid Parking Ramp Expansion	FFP	TBD	0.225	0.469		0.100		2.100	Jun-05	0.600	3.494	3.500
Multimedia Training Systems (MTS)	FFP	Multiple	2.403	1.720		0.984		0.800		Continuing	TBD	TBD
Commercial Technology Exploitation (CTE)	FFP	Multiple	1.042	0.701		0.747		0.705		Continuing	TBD	TBD
Large Shelter System (LSS)	FFP	TBD	0.000	1.215		1.339	Apr-04	0.500		0.000	3.054	3.100
New Family of Environmental Control Systems (NFECS)	FFP	TBD	0.000	0.000		0.000		0.600		1.400	2.000	2.000
Base Operations Support Assessment Model (BOSAM)	FFP	TBD	0.000	0.000		3.000		0.000	Dec-04	0.000	3.000	3.000
Subtotal Product Development			7.637	5.205		7.870		6.405		Continuing	TBD	TBD
Remarks:												
(U) <u>Support</u>												
None.											0.000	
None											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Test & Evaluation</u>												
Various	Various		0.000	0.000		0.000		0.000		Continuing	TBD	
None											0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		Continuing	TBD	0.000
Remarks:												
(U) <u>Management</u>												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			7.637	5.205		7.870		6.405		Continuing	TBD	TBD

Project 2895

R-1 Shopping List - Item No. 80-5 of 80-13

Exhibit R-3 (PE 0604617F)

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Exhibit R-3, RDT&E Project Cost Analysis

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604617F Agile Combat Support

PROJECT NUMBER AND TITLE

2895 CE Readiness

NOTE: This is a level of effort Program Element with 20+ years of projects. Prior years breakout not available.

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Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

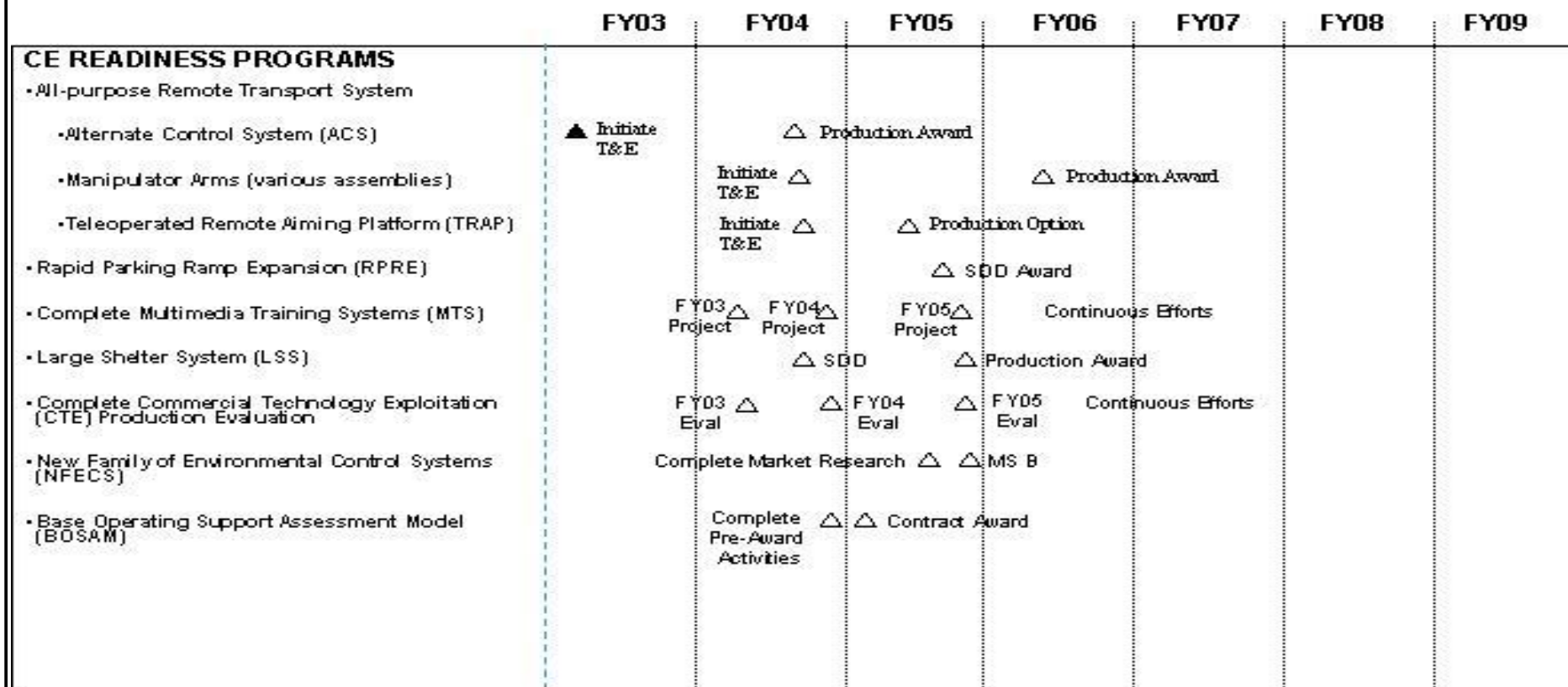
PE NUMBER AND TITLE

0604617F Agile Combat Support

PROJECT NUMBER AND TITLE

2895 CE Readiness

CE Readiness Schedule



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Exhibit R-4a, RDT&E Schedule Detail		DATE February 2004		
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)	0604617F Agile Combat Support	2895 CE Readiness		
(U) Schedule Profile		<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) ALL-PURPOSE REMOTE TRANSPORT SYSTEM (ARTS)				
(U) Initiate Test and Evaluation for the Alternate Control System (ACS)		1Q		
(U) Award ACS Production Contract			3Q	
(U) Initiate T&E for Manipulator Arms			3Q	
(U) Initiate T&E for Teleoperated Remote Aiming Platform (TRAP)			3Q	
(U) Award TRAP Production Option				2Q
(U) RAPID PARKING RAMP EXPANSION (RPRE)				
(U) Award SDD Contract				3Q
(U) MULTIMEDIA TRAINING SYSTEMS (MTS)				
(U) Complete FY03 Projects			2Q	
(U) Complete FY04 Projects			4Q	
(U) Complete FY05Projects				4Q
(U) COMMERCIAL TECHNOLOGY EXPLOITATION (CTE)				
(U) Complete FY03 Product Evaluation			2Q	
(U) Complete FY04 Product Evaluation			4Q	
(U) Complete FY05 Product Evaluation				4Q
(U) LARGE SHELTER SYSTEM (LSS)				
(U) Award SDD Contract			3Q	
(U) Award Production Contract				4Q
(U) NEW FAMILY OF ENVIRONMENTAL CONTROL SYSTEMS (NF ECS)				
(U) Complete Market Research				3Q
(U) Milestone B Decision				4Q
(U) BASE OPERATIONS SUPPORT ASSESSMENT MODEL (BOSAM) (CONGRESSIONAL ADD)				
(U) Complete Pre-Award Activities			4Q	
(U) Award Development Contract				1Q

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Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)				0604617F Agile Combat Support			4910 Aeromedical Readiness		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
4910 Aeromedical Readiness	2.665	5.490	3.648	2.967	2.276	2.283	2.292	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

In FY04, Project 4910 received two Congressional Adds in the amounts of \$2.8M and \$2.1M, respectively, for the Deployable Oxygen System (DOS) program and Nano-Technology to produce sterile water.

(U) **A. Mission Description and Budget Item Justification**

This program provides tactical and strategic aeromedical evacuation systems, automated information systems, and medical treatment equipment to meet unique Air Force medical readiness and operational requirements.

The Agile Combat Support program is in RDT&E Budget Activity 5 - System Development and Demonstration (SDD) because it supports development, testing and evaluation of materials and equipment for contingency basing, detection and handling of explosive ordnance, tactical shelters, and aeromedical evacuation systems.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continue operation support, market research, and acquisition strategy for deployable oxygen systems	0.287	0.355	0.416
(U) Continue development of oxygen systems to meet deployable oxygen requirements	1.800	2.800	2.970
(U) Conduct foundational studies and analyses of Nano-Technology to produce sterile water	0.000	2.100	0.000
(U) Aeromedical Systems Analysis - Conduct foundational studies and analyses, requirements analyses, and product demonstrations to meet operational needs, and define acquisition strategies and baselines for potential system solutions to Air Force Medical Service materiel needs	0.578	0.235	0.262
(U) Total Cost	2.665	5.490	3.648

(U) **C. Other Program Funding Summary (\$ in Millions)**

	<u>FY 2003</u> <u>Actual</u>	<u>FY 2004</u> <u>Estimate</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) Other Procurement, AF, PE 0208038F, Other Base Maintenance and Support Equipment (WSC 845060)	13.742	29.520	14.019	14.595	14.939	15.268	15.574	Continuing	TBD

(U) **D. Acquisition Strategy**

All major projects are awarded under best-value competitive solicitation.

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Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2004

BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE				
05 System Development and Demonstration (SDD)				0604617F Agile Combat Support					4910 Aeromedical Readiness				
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method</u> & Type	<u>Performing Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2004</u> <u>Cost</u>	<u>FY</u> <u>2004</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2005</u> <u>Cost</u>	<u>FY</u> <u>2005</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>	
(U) <u>Product Development</u>													
Deployable Oxygen Systems (DOS)	FFP	Essex, MO; and Clever Fellow Innovation Corporation (CFIC), N.Y.	0.000	2.087	Jan-04	2.800		2.920		Continuing	TBD		
New Business	Various		17.477	0.000		0.000		0.000		Continuing	TBD		
Spinal Cord Injury Transport System (SCITS)	CPIF									Continuing	TBD		
Chemically Hardened Air Transportable Hospital (CHATH0 & Chemically Hardened Air Management Plant (CHAMP)	CPFF		3.609	0.000		0.000		0.000		Continuing	TBD		
Theater Medical Information Program, Air Force (TMIP-AF)	Various		1.763	0.000		0.000		0.000		Continuing	TBD		
Integrated Medical Information Technology System (IMITS)	N/A	University of Pittsburg Medical Center, PA	8.430	0.000		0.000		0.000		0.000	8.430		
Rural Low-Bandwidth Collaboration System	N/A	Nevada Institute of Research and Technology, NV	0.992	0.000		0.000		0.000		0.000	0.992		
Nano-Technology to produce sterile water	TIA	Seldon Labs, VT	0.000	0.000		2.100	May-04	0.000		0.000	2.100		
Subtotal Product Development			32.271	2.087		4.900		2.920		Continuing	TBD	0.000	
Remarks:	DOS FY03 funds, which include a \$1.800 congressional add, were awarded in a Jan 04 to Essex and CFIC. They will develop prototypes for demonstration and compete for a single SDD contract. Operational requirements definition and acquisition strategy being developed for award of FY04 congressional add funds (\$2.800).												
(U) <u>Support</u>													
Technical Engineering And Management Support (TEAMS)	Delivery Order		3.061	0.356		0.340		0.338		Continuing	TBD		
Program Management Support & Operations	Various		3.767	0.180		0.200		0.340		Continuing	TBD		
None.											0.000		

Project 4910

R-1 Shopping List - Item No. 80-10 of 80-13

Exhibit R-3 (PE 0604617F)

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Exhibit R-3, RDT&E Project Cost Analysis						DATE February 2004		
BUDGET ACTIVITY			PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)			0604617F Agile Combat Support			4910 Aeromedical Readiness		
Subtotal Support	6.828	0.536	0.540	0.678	Continuing	TBD	0.000	
Remarks:								
(U) <u>Test & Evaluation</u>								
DOS Test and Evaluation	0.140	0.042	0.050	0.050	Continuing	TBD		
None.							0.000	
Subtotal Test & Evaluation	0.140	0.042	0.050	0.050	Continuing	TBD	0.000	
Remarks:								
(U) <u>Management</u>								
							0.000	
Subtotal Management	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Remarks:								
(U) Total Cost	39.239	2.665	5.490	3.648	Continuing	TBD	0.000	

Exhibit R-4, RDT&E Schedule Profile

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

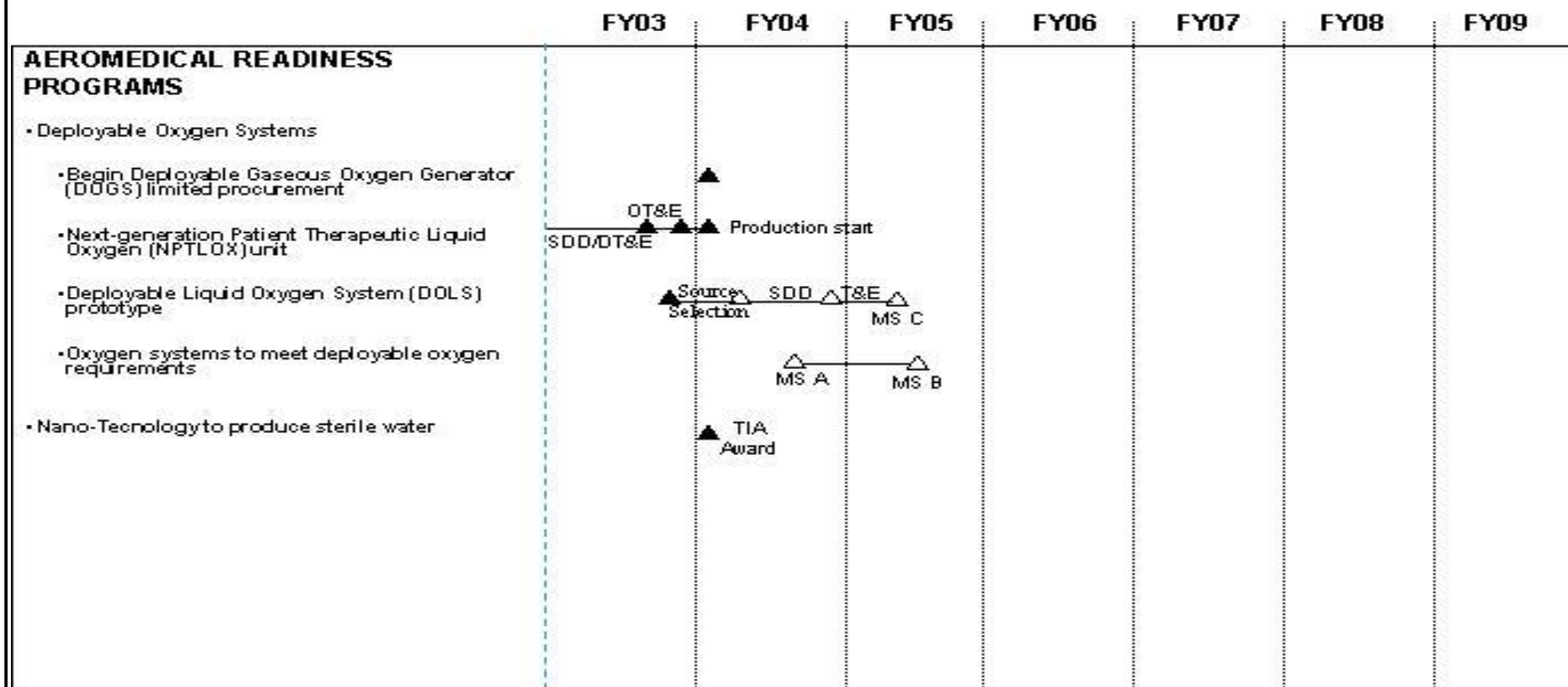
PE NUMBER AND TITLE

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PROJECT NUMBER AND TITLE

4910 Aeromedical Readiness

Aeromedical Readiness Schedule



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Exhibit R-4a, RDT&E Schedule Detail			DATE	
			February 2004	
BUDGET ACTIVITY		PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE	
05 System Development and Demonstration (SDD)		0604617F Agile Combat Support	4910 Aeromedical Readiness	
(U) <u>Schedule Profile</u>		<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) DEPLOYABLE OXYGEN SYSTEMS				
(U) -Began Deployable Gaseous Oxygen Generator (DOGS) limited production			1Q	
(U) -Completed Next-generation Patient Therapeutic Liquid Oxygen (NPTLOX) system SDD/DT&E and begin OT&E		3Q		
(U) -Completed NPTLOX OT&E		4Q		
(U) -Began NPTLOX production			1Q	
(U) -Began Deployable Oxygen Liquification System (DOLS) prototype development			2Q	
(U) -Complete DOLS prototype development			4Q	
(U) -Conduct concept analyses and begin development of oxygen systems to meet deployment requirements			3Q	
(U) Begin Technology Insertion Agreement (TIA) of Nano-Technology to produce sterile water			1Q	

Project 4910

R-1 Shopping List - Item No. 80-13 of 80-13

Exhibit R-4a (PE 0604617F)